whole new world. And, like astronauts returning from space, they bring back with them invaluable knowledge about themselves and the world around them. This knowledge will help them aim for the stars as they pursue new heights in math, science, and technology.

Inspiring children through facilities such as this is essential to initiate and maintain interest in technology among our young people to enable them to meet the demands citizens will face in the next century. This is essential to maintain our position in the global economy of the future.

Unfortunately, but true, many children decide as early as elementary school that they have no interest in science. Too many believe they can't ''do'' science or that math is ''too hard.'' The result, according to some estimates, is that America will have a shortage of half a million chemists, biologists, physicists, and engineers by the year 2000. The Challenger Center is helping reverse that trend. Fortunately, these same students are fascinated by space subjects, especially astronauts. This unique, hands-on experience can raise students' expectations of success, foster in them a long-term interest in math and science, and motivate them to pursue careers in these fields.

It is only natural that the Challenger Center can be a way to reach students uncertain about science. Since the inception of the space program, NASA and the Nation's education system have traveled parallel paths. They share the same goals—exploration, discovery, the pursuit of new knowledge, and the achievement of those goals is interdependent. NASA depends on the education system to produce a skilled and knowledgeable work force. The education community, in turn, has used the space program to motivate and encourage students to study science, engineering and technology.

If the United States is to remain at the forefront of space science and aerospace technology and research, then we must provide students with the skills they will need in a highly complex and technical workplace. The next generation of science and technology achievements can only be as good as the education and challenges we give our children in those subjects today.

The children who visit this center today could easily turn out to be the scientists of tomorrow. Who knows what discoveries they will make or new technologies they will develop? Their work could be as dramatic as the airplane was to our grandparents or the space shuttle to us.

Even for those who don't enter the world of science, this center offers an insight into the technological world around them. If we think it's vital to be computer literate today, imagine the skills that will be required in another generation.

An important aspect of this challenge to learn is that some believe the United States is no longer challenged. With the demise of the Soviet Union and the end of the cold war, we no longer have the type of outside challenge that pushed us to the Moon. Remember, it was the insult and shock of Sputnik that led President Kennedy to launch the space program.

If we are not to be challenged by another nation, we must challenge ourselves. We must make a commitment to go where no one has gone before, to explore and learn and never be satisfied that there are no challenges left to meet.

Today I'd like to challenge our young people to continue the record of meeting challenges that our Nation has exhibited in the past. The Buehler Center is part of the highway to a future where the American thirst for knowledge will keep our Nation the world's leader in science and technology.

MAKING A CASE FOR DIVERSITY IN THE SCIENCES

HON. LOUIS STOKES

OF OHIO

IN THE HOUSE OF REPRESENTATIVES

Tuesday, March 18, 1997

Mr. STOKES. Mr. Speaker, on February 21, 1997, I was honored to have Dr. Walter E. Massey visit my congressional district. Dr. Massey is the president of Morehouse College in Atlanta, GA. Morehouse is one of our Nation's most distinguished institutions of higher learning. Dr. Massey, a Morehouse alumni, is the former Director of the National Science Foundation. He has also held a range of administrative and academic positions, including provost and senior vice president of affairs of the University of California.

When he visited my congressional district, Dr. Massey utilized the occasion to address an issue of critical importance to this Nation and its people. In his remarks at the City Club of Cleveland, he spoke from the topic, ''Making a Case for Diversity in the Sciences.''

Mr. Speaker, Dr. Massey delivered a speech which was insightful and thorough. I want to take this opportunity to share a copy of Dr. Massey's remarks with my colleagues and others throughout the Nation. It is certainly worthwhile reading.

MAKING A CASE FOR DIVERSITY IN THE SCIENCES

(Walter E. Massey, President, Morehouse College)

I will be speaking with you this morning about diversity, and making a case for diversity in the field about which I am most knowledgeable, the sciences. I will focus on the ends and goals of diversity—a society that is enriched by the contributions of all its members—and on what, for now, I see as one of the best ways of achieving those goals—affirmative action.

Indeed, affirmative action is one of the most highly debated issues in the United States today. The recent vote on Proposition 209 in California, and the decision of the Board of Regents at the University of California to abolish many of its affirmative action programs during a time I was at the University, are among the most visible examples of a retrenchment from the support of affirmative action in the nation. Legal cases challenging affirmative action in Texas and Virginia, and recent Supreme Court decisions on hiring policies and set-asides, have made this issue one in which the nation has become deeply involved.

It is not my intention this morning to speak in detail about affirmative action, in general, in the United States. What I would like to do, however, is make the case that the ends toward which affirmative action programs have been aimed—that is diversity and inclusion in all aspects of American society—are ends that are worth the struggle, conflicts and controversy that affirmative action programs now generate. By focusing on the long-term benefits that will result from such programs, I would hope that we might somewhat diffuse the emotionalism and confrontation surrounding current programs. Although I have few doubts that those arguments will go away.

I would like to make the case today that, at least in the sciences, the area in which I have spent my life, the end results of having a more diverse representation will more than pay for the nation and the world, and because of that, justifies our having affirmative action programs at present.

If it is not clear, I should go on record by saying I am a supporter of affirmative action. I am convinced that affirmative action—which I define as providing equal *access* to opportunities to all people—is not only a necessary corrective action to address past injustices that have limited the access of minorities and women to opportunities in education, employment, politics, the sciences and other areas, but a necessary positive action for the long-term benefit of our nation.

Having said that, I should also say that I do not believe that all affirmative action programs, as they are currently cast and operated today, should be embedded in perpetuity. I see affirmative action as an access tool, not an entitlement benefit. As President Clinton has said, some programs need at this point to be *mended,* not ended. Our goals should be, at some point in the future, to be able to end affirmative action programs.

But, until we live in a much more perfect world than we live in now, a world where the playing field is level for everyone regardless of their race or sex, we will need affirmative action programs, or their equivalent, to obtain goals that are in the best interest of society as a whole.

For, despite some significant gains in the past 30 years, the reality is that in too many places, including our board rooms, court rooms, laboratories, legislatures, and in the hall of higher education, women and other minority groups remain much underrepresented in proportion to their numbers in society, and, more important, with respect to their potential contribution to society.

We must do something to correct these imbalances. Not only is it our moral responsibility as a nation, but, I believe—and this is the crux of my message to you today—providing equal access to opportunity for all people is the key to our ability to prosper and thrive in the global metropolis that our world is fast becoming.

As a supporter of affirmative action, in general, with the particular goals I have elucidated, I am particularly supportive of any programs that will increase the number of previously underrepresented groups in the sciences. I am convinced that, perhaps among all areas of human endeavor, the sciences are likely to produce the kind of broad, enduring, societal benefits that accrue from the involvement of diverse participants.

And affirmative action programs—to the extent they are designed to encourage more diversity by attracting and retaining to the practice of science individuals from varied backgrounds—will ultimately benefit all humankind.

I would also assert that the arguments I will make for diversity in the sciences can be made for business and commerce, higher education in general, the legal and health professions, government occupations, and in fact, all other fields. But let me make the case this morning for the sciences.

It perhaps goes without saying that the era that we now live in is justifiably labeled the era of science and technology. Never before in the history of the civilized world has science and technology so pervaded every aspect of our lives. And, never before has the

pace of scientific innovation and discovery been as rapid as it is today. And, it cuts across every field within science (and technology) from physics to biology, materials to astronomy and the applications of science: medicine, microelectronics, energy production, environmental research, and the like.

Science plays a critical role in solving the problems of our world. Some futurists have even suggested that the prosperity of the human race depends on scientists' ability to make sense out of the mysteries that confront and baffle mankind. That may be overstated, somewhat. I would say that scientists, along with philosophers, theologians, and others, are needed to make sense of and solve the mysteries of the universe. Science will not do it alone, but it can not be done without science.

The study and practice of science also can have other associated benefits, not the least significant of which are the kinds of attitudes and abilities that can be gained from studying science.

The world over, nations are realizing more than ever that there most valuable resource is there people—in all their diversity. No nation can now afford to squander its human resources and to not take advantage of all the potential talent it has within its citizenry. ''Developed'' and ''developing nations'' alike are also recognizing that their citizens must not only have technical skills, but certain values, character traits, habits of mind, and principles that will allow them to function effectively in this rapidly changing world.

Some of those characteristics and traits are: a confidence in one's ability to learn and to continue learning after formal schooling; adaptability; flexibility; a willingness to tackle hard problems; curiosity; and a healthy sense of skepticism that causes one to examine every situation with ''fresh eyes.'' Studying science enhances these characteristics and traits, and I would also argue that these are just the traits necessary for an ''Innovative Society,'' a society that harnesses science for economic and social development.

Given the scope and importance of science in solving problems, probing the deep mysteries of life, and contributing to economic and social development, I believe that to fail to educate and apply the skills of people of all backgrounds to the field of scientific endeavor is equivalent to operating a high-performance race car on four cylinders rather than eight.

But operating at less than our full capacity is, in effect, what we have been doing—given the fact that minorities and women are still grossly underrepresented in the sciences.

There has been progress, and the makeup of American science has changed considerably over the past few decades. The people who do science in America are no longer mostly white Anglo-Saxon Protestants, and they certainly do not come from an exclusively upper-class stratum, as they were and did in the 19th century.

Thankfully, we have begun to recognize that ideas and insights come to individuals, not groups or communities. Scientists in the United States now include men and women from all ethnic groups: Jews, eastern Europeans, increasingly Asian Americans, Hispanics, and African Americans. In fact, the first three groups, Jews, eastern Europeans and Asians, have perhaps done more than any other ethnic groups to make American science as preeminent in the world as it is today. And African Americans and others have made, and continue to make, important contributions in many scientific fields, including chemistry, physics, biology, mathematics and engineering.

Yet, according to the National Science Foundation, ethnic minorities, who comprise approximately 21 percent of the population, account for less than 5 percent of all scientists in the United States.

Underrepresented groups—groups that have not in the past been exposed, allowed, or encouraged to study science—have to be brought into the mainstream, not only out of a sense of fairness and equity, but out of a sense of national and global need. And that's where affirmative action comes in. As a tool to more effectively tap the talents of women and minorities, affirmative action not only helps right the wrongs of the past, but ensures equal access to opportunity in the future.

The fact that many people see affirmative action as a win-lose proposition is the result of a narrow view of the issue, a focus on the means of affirmative action—the goals, quotas, and set-asides—rather than the ultimate goal of affirmative action—a society that is enriched by the contributions of the talents and energies of all its people.

The job of helping to ensure diversity in the sciences, of attracting people from different backgrounds to the field and preparing them to make meaningful contributions, falls largely to our nation's educational institutions. For it is often in classrooms that students' eyes are first opened to the reality of who they are and to the possibility of who they might become. According to the National Science Foundation, only about 5 to 6 percent of people surveyed each year are ''scientifically and technically literate.'' And these are adults! Somehow, despite our best efforts, our schools are failing us in this important area.

We understand some of the reasons for those embarrassing statistics. Many youngsters (and adults), quite often fear science, or fear being able to understand it. That fear leads to a distrust of things scientific and technical. This is one of the major attitudes that must be addressed early in life, before youngsters develop a lack of confidence and fear. This fear is learned; it is not natural. ''All children are born scientists.'' Youngsters have a healthy curiosity about the world, and a confidence in their ability to understand things around them. This confidence and curiosity is too often allowed to lapse or be destroyed by poor teaching.

We need more diversity in science for the benefit of the nation and the world, and for the benefit of individuals in those groups that have been underrepresented for various reasons.

But this morning, I also want to make another argument for such diversity—that it is good for science, that science itself is enhanced by being practiced in a multiethnic environment, that the practice of science is enriched and enlivened by the participation of individuals from a broad spectrum of ethnic and cultural backgrounds, and that the presence of minorities in the sciences makes a tremendous, positive impact on the field, and by extension, on the people it serves—all of us.

Science is more than just a utilitarian undertaking or endeavor that contributes to economic development and enhances our standard of living, although it is certainly that, Science is also an intellectual and humanistic endeavor. It is an expression of humanity's curiosity about the universe we live in and an expression of an innate, embedded desire in us to understand and make sense of our surroundings and ourselves. Questions such as what is the origin and fate of the universe? How did the world begin? Why is there life and what is its meaning? These are deep philosophical and religious questions. But at bottom, they are also fundamental questions of science.

Since the beginnings of history, every culture and every ethnic group has puzzled over these and similar questions, and has devised some sort of system to explore answers and construct explanations to these mysteries. The explanations have often been crude and primitive, and have varied by culture and geography. But, they have been aimed basically at the same end—to understand the world and our place in it.

Every society throughout history, no matter what its social or ethnic makeup, has contributed to our understanding of the universe and has helped to build the edifice we now call modern science.

Science and technology are cultural phenomena in the broadest sense. Although the laws of science and rules of technology do not apply differently to different groups, science and technology are enriched by including more individuals from different backgrounds and different perspectives—because they have a different lens through which phenomena are viewed. People from different backgrounds can bring different and unusual insights to the study of science and applications of technology—not necessarily because of their racial or cultural heritage—but because of their complete life experiences among which their racial and cultural heritage is a part.

Making a case for diversity in science and technology, or in any other field for that matter, can be boiled down to mathematical logic: When we are inclusive rather than exclusive, we have more people, more creative power at our disposal. Gerald Holton, a physicist, historican of science, and colleague of mine at Harvard University, put it this way:

''I would conclude that it is not only possible, but almost inevitable, that we might capture novel or unusual insight into the understanding of the universe from people who have different life experiences or come from different cultures—simply because the larger the pool of well-trained and hard-working people, the larger the probability of novel and unusual insights. In this sense, excluding potential scientists is a crime against the ethos of science itself.''

The fact of the matter is that brilliance and genius are not confined to particular ethnic and racial groups. Science and technology profits and prospers—and everyone benefits—when the best and brightest are part of its activities.

I submit that a similar argument can be made for almost any field, profession or human endeavor. All will be enriched and enhanced by diversity. The goal of affirmative action—as I see it—is to help us as a nation evolve into a society where we judge people as individuals—regardless of their skin color or ethnic heritage, and where such diversity occurs naturally. Unfortunately, we have not reached that point. We are not yet where Martin Luther King Jr. wanted us to be, where people ''will not be judged by the color of their skin, but by the content of their character.''

Where are we along this path? Let me close by saying a few words about the sciences in that regard.

Fortunately, progress is being made on several fronts. High school and elementary school reform efforts throughout the country have been started and are addressing, in very fundamental and exciting ways, the problems of improving the quality of science education at the K–12 level. Colleges and universities are also responding to the challenge as well, by improving the quality of undergraduate and graduate science teaching.

Historically black colleges and universities, which grant bachelor's degrees to 30 percent of the African Americans who pursue majors in science and engineering, continue to play a critical role in this regard. Since

the 1989–90 academic year, the number of degrees awarded by the member institutions of The College Fund/UNCF have increased 64 percent in biology, 39 percent ion mathematics, and 31 percent in physics and chemistry.

At Morehouse College, more than ⅓ of our graduates are in science and engineering. And, last year at Morehouse, we received federal support to establish a Center of Excellence in Science, Mathematics and Engineering Education. The Center's mission is to increase the number of underrepresented groups pursuing careers in science, mathematics and engineering by providing scholarships and recruiting male and female high school students to participate in intensive summer programs, and by providing professional development activities and research experiences for public high school teachers.

I do not single out this program because it is unique, but because it is an example of the kind of initiatives we need more of to ensure diversity in the sciences, and to ensure that our world will not be cheated out of the best we—that is all of us—can offer.

As I indicated earlier, the arguments I have made for diversity in the sciences are equally compelling when applied to business and other fields. In fact, American businesses particularly those that are becoming more and more multi-national and global in their operations, are making these arguments. No major American company has renounced its commitment to diversity. In fact, if anything, these companies are enhancing their commitment.

It is ironic that when it comes to affirmative action, the most potentially retrogressive sector of American society is not the business and commercial world, but higher education—an area we would hope and expect to lead the nation in setting a positive example for inclusion and diversity.

The University of California, a multi-billion dollar operation, is the only major institution in the nation that has formally withdrawn its commitment to such programs. Only one board of directors or regents of any institution in the nation has voluntarily changed its course, and that is a major university. There is a message in this for those of us in higher education.

This development is particularly sobering when we reflect on the fact that the birthplace of the Civil Rights Movement, and in many ways, the birthplace of the feminist movement for equal rights for women, grew out of the protest activities and the scholarly writings and research of individuals in the university and college community.

Indeed how ironic—and how unfortunate—it would be if we allowed higher education institutions, which have paved the way for so much progress in the area of diversity, to be the vanguard leading us back into the past.

I do not think this will happen, for I know the vast majority of my colleagues in higher education are committed to a vision of an inclusive, diverse society. But, it is incumbent on us in higher education, and indeed all of education, to continue to make the case, present the arguments, and marshal the evidence that the struggles and challenges of present-day affirmative action programs will ultimately benefit us all.

PROTECTING PUBLIC LANDS

HON. MAURICE D. HINCHEY

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Tuesday, March 18, 1997

Mr. HINCHEY. Mr. Speaker, over the past 20 years, the demands on our public lands and resources have been steadily increasing. Growing interest in the kinds of recreational opportunities offered by our national parks, forests, and other lands has led to overcrowding at many of the most popular parks, and increased visitorship almost everywhere. At the same time, the need for the land management agencies to advance their mission of resource protection has also increased. Growth and development has reduced wildlife habitat, has increased the demand for pure and clean water, and has intensified the environmental stresses on undeveloped land, including many of the lands owned by all the American people and managed for them by the Federal Government.

But while the demands have been increasing, the share of the Federal budget devoted to these resources has been declining. The agencies have been asked more and more to pay their own way—as if the work they do did not benefit all Americans. The Land and Water Conservation Fund, originally intended to provide a secure and steady source of funding to acquire critically important properties for public benefit, has fallen into disuse: Its funds are now used primarily to lend money to the Treasury for other purposes.

If we have not seen the stresses on our parks and forests and refuges with our own eyes, all of us have at least read about them—the constant traffic at parks like Yosemite and Grand Canyon, the sagging roof at Independence Hall, the damage done to Anasazi ruins in the Southwest that the Government can't afford to guard. Our national treasures are decaying. Our citizens who want to visit and enjoy them can't be accommodated. And our natural resources—our pure water, our wildlife—are suffering.

It is time that we reverse direction and start increasing our investment in these resources, and increasing our attention to these problems. I'm pleased to say that over 150 organizations from all around the country—national groups and local groups, conservation groups and recreation groups, sportspeople and environmentalists, hikers, hunters, fishers, and scientists, have joined together to endorse a specific and detailed proposal for gradually and steadily increasing investment in these resources over the next 5 years. Their proposal would help to alleviate the strain on the land management agencies, help them deal with their backlog of repair and restoration projects, and help them to serve the needs and demands of the American public.

Their proposal is by no means a budget buster. On the contrary, if we do not pay attention to these issues, we will be squandering our capital, the lands, and resources we hold in trust for the American people. We cannot afford to keep deferring these needs any more than we could afford to defer fixing a broken pipe or a leaky roof in our own homes.

We will be hearing more about this proposal in the months ahead, as we consider the budget and appropriations for next year. I am sharing it with all my colleagues in the House today, and I ask everyone to give it serious consideration. Appropriately, the great-grandson of President Theodore Roosevelt provided an introduction for the plan, carrying on his family's distinguished tradition of support for public lands and the protection of irreplaceable resources.

I am urging your full consideration of the attached funding recommendations—supported by 150 environmental, recreation, and conservation groups—for our public lands and wildlife systems.

America's public lands and resources belong to—and benefit—all citizens in numerous ways. They represent a magnificent natural heritage that will be squandered without adequate commitment of funding to support dedicated staff and other resources necessary for proper stewardship. These irreplaceable national assets: Protect wildlife, rare and endangered species, and other living resources; help to keep our air and water clean and pure; supply renewable and non-renewable resources; support vital industries like fishing and resource dependent recreation resulting in billions of dollars of direct and indirect economic benefits for local communities; generate millions of annual recreational visits by enthusiasts engaging in activities like wildlife viewing, photography, camping, family picnics, hunting, and fishing; provide untold hours of enjoyment for millions of American families as well as solace and renewal for those wanting the solitude of a wilderness experience; and satisfy our deeply rooted national ethic to keep wild America alive and thriving.

Given the overwhelming importance of these resources to present and future generations of Americans, the only fiscally responsible course is to invest adequately in their stewardship and management even as we take needed steps to balance the federal budget. Indeed, denying critically needed funding is fiscally irresponsible and shortsighted—the neglect caused by deficient funding will result in destruction and degradation of these valuable assets that is far more costly in the long run than providing the funds to properly care for them today. The attached proposal makes prudent and modest recommendations for necessary funding increases that will help to protect our public assets and ensure that our children and grandchildren will continue to enjoy and benefit from them.

As President Theodore Roosevelt said, ''Wild beasts and birds are by right not the property merely of the people who are alive today, but the property of unborn generations whose belongings we have no right to squander.'' We owe our unborn future generations a fiscal legacy that acknowledges and sustains their natural legacy.

Sincerely yours,

THEODORE ROOSEVELT IV.

PUBLIC LANDS FUNDING INITIATIVE

INTRODUCTION

The public lands of the United States—our National Parks, Forests, Grasslands, and Wildlife Refuges—are held in trust for current and future generations of Americans. Since the election a number of organizations from the environmental, recreation, and conservation community have been meeting to coordinate an initiative to address the funding needs of America's public lands. The public lands community plans to make this a long-term campaign that will help frame the budget debate while focusing on the message that we can balance the federal budget without abandoning America's public lands.

We plan to convince a majority in Congress that this is an area where additional cuts are not justified, and further, that incremental increases in the public lands budget are necessary to protect the nation's forests, parks, refuges, and wildlife. A successful effort will mean that we can maintain accessibility to these lands and improve their ecological health.

This proposal establishes annualized budget goals for several Department of Interior agencies and the U.S. Forest Service. The environmental, conservation, and recreational community will also be working toward